

6550

Beam Power Tube

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Center Values*):

Voltage (AC or DC). 6.3 ± 0.6 volts
Current at heater volts = 6.3 1.600 amp

Peak heater-cathode voltage:

Heater negative with
respect to cathode. 300^a max. volts
Heater positive with
respect to cathode. 200^b max. volts

Direct Interelectrode Capacitances (Approx.):^c

Grid No.1 to plate. 0.85 μf
Grid No.1 to cathode & grid No.3,
grid No.2, base sleeve, and heater. 14.0 μf
Plate to cathode & grid No.3, grid
No.2, base sleeve, and heater 12.0 μf

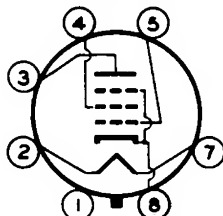
Characteristics, Class A₁ Amplifier:

	Triode Connection ^d		
Plate Voltage	250	450	400 volts
Grid-No.2 Voltage	250	450	225 volts
Grid-No.1 Voltage	-14	-46	-16.5 volts
Amplification Factor.	8	7.5	—
Plate Resistance (Approx.). . . .	12000	—	27000 ohms
Transconductance.	11000	—	9000 μmhos
Plate Current	140	150	87 ma
Grid-No.2 Current	12	—	4 ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1	-40	—	-35 volts

Mechanical:

Operating Position. Any
Type of Cathode Coated Unipotential
Maximum Overall Length. 4-3/4"
Maximum Seated Length 4-3/16"
Maximum Diameter. 2-1/16"
Bulb. ST16
Base. . . Large-Wafer Octal 8-Pin with Sleeve (JEDEC Group 1,
No. B8-86)
Basing Designation for BOTTOM VIEW. 7S

Pin 1—Base Sleeve
Pin 2—Heater
Pin 3—Plate
Pin 4—Grid No.2
Pin 5—Grid No.1



Pin 6—No Internal
Connection
Pin 7—Heater
Pin 8—Cathode,
Grid No.3



RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA 1
5-62

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AF POWER AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE.	600 max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE.	400 max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Negative-bias value.	300 max.	volts
Positive-bias value.	0 max.	volts
CATHODE CURRENT.	175 max.	ma
GRID-No.2 INPUT.	6 max.	watts
PLATE DISSIPATION.	35 max.	watts
BULB TEMPERATURE (At hottest point on bulb surface)	250 max.	°C

Typical Operation and Characteristics:

Plate Voltage.	250	400	volts
Grid-No.2 Voltage.	250	225	volts
Grid-No.1 Voltage.	-14	-16.5	volts
Peak AF Grid-No.1 Voltage.	14	16.5	volts
Zero-Signal Plate Current.	140	87	ma
Max.-Signal Plate Current.	150	105	ma
Zero-Signal Grid-No.2 Current.	12	4	ma
Max.-Signal Grid-No.2 Current.	28	18	ma
Plate Resistance (Approx.)	12000	27000	ohms
Transconductance	11000	9000	μmhos
Load Resistance.	1500	3000	ohms
Total Harmonic Distortion.	7	13.5	%
Max.-Signal Power Output	12.5	20	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.05 max.	megohm
For cathode-bias operation	0.25 max.	megohm

PUSH-PULL AF POWER AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

Same as for AF POWER AMPLIFIER — Class A₁

Typical Operation and Characteristics:

Values are for 2 tubes

	Fixed Bias		Cathode Bias	
Plate Supply Voltage	400	600	400	volts
Grid-No.2 Supply Voltage	275	300	300	volts
Grid-No.1 Voltage.	-23	-31	-	volts
Cathode Resistor	-	-	140	ohms
Peak AF Grid-No.1-to-Grid-No.1 Voltage.	46	62	53	volts
Zero-Signal Plate Current.	180	115	166	ma
Max.-Signal Plate Current.	270	273	190	ma
Zero-Signal Grid-No.2 Current.	9	4	7.5	ma
Max.-Signal Grid-No.2 Current.	44	41	39	ma
Effective Load Resistance (Plate to plate)	3500	5000	4500	ohms



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Total Harmonic Distortion.	3	2.5	4	%
Max.-Signal Power Output	55	100	41	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.05 max.	megohm
For cathode-bias operation	0.25 max.	megohm

PUSH-PULL AF POWER AMPLIFIER — Class A1

Triode Connection^d

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE.	495 max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE.	440 max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Negative-bias value.	330 max.	volts
Positive-bias value.	0 max.	volts
CATHODE CURRENT.	192.5 max.	ma
GRID-No.2 INPUT.	6.6 max.	watts
PLATE DISSIPATION.	44 max.	watts
BULB TEMPERATURE (At hottest point on bulb surface)	250 max.	°C

Typical Operation and Characteristics:

Values are for 2 tubes

Plate Voltage.	450	volts
Grid No.1 Voltage.	-46	volts
Peak AF Grid-No.1-to-Grid-No.1-Voltage	92	volts
Zero-Signal Plate Current.	150	ma
Max.-Signal Plate Current.	220	ma
Effective Load Resistance (Plate to plate)	4000	ohms
Total Harmonic Distortion.	2.5	%
Max.-Signal Power Output	28	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.05 max.	megohm
For cathode-bias operation	0.25 max.	megohm

^a The dc component must not exceed 300 volts.

^b The dc component must not exceed 100 volts

^c without external shield.

^d Grid No.2 connected to plate.

